

**SYNONYMICAL NOTES ON NORTH AMERICAN
SPHECOID WASPS. IV.¹ SOME SYNONYMY
IN OXYBELUS AND DESCRIPTION OF A
NEW SUBSPECIES (HYMENOPTERA).**

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Synonymy in most of the following species of *Oxybelus* was established as a result of a critical study of type material of North American species in the collection of the United States National Museum. This study was initiated when R. M. Bohart, of the University of California at Davis, requested specific determinations for some species from California. The opportunity is also taken at this time to describe a new subspecies of *sericeus* Robt., for which a name is needed in connection with some biological observations.

Oxybelus cornutus Robertson

Oxybelus cornutus Robertson, 1889. Trans. Amer. Ent. Soc. 16: 80. Male.

Oxybelus quadricolor Cockerell and Baker, 1896. Psyche 7 (sup.): 21. Female. NEW SYNONYMY.

Oxybelus polygoni Rohwer, 1909. Trans. Amer. Ent. Soc. 35: 116. Female. NEW SYNONYMY.

Oxybelus cornutus var. *quadricolor* Cockerell and Baker, Rohwer, 1909. Trans. Amer. Ent. Soc. 35: 117. Female.

There are in the U. S. National Museum collection the female type of *quadricolor* from Santa Fe, New Mexico, and the female paratype from Fort Collins, Colorado, the unique female type of *polygoni* from Boulder, Colorado, and a female from Cope, Colorado, determined as *cornutus* var. *quadricolor* by Rohwer. These specimens agree in such important details as having the mesonotum red anteriorly, a large impunctate tubercle on the middle of the vertex, a rather large impunctate swelling along inner anterior margin of posterior ocellus, the pronotal carina interrupted at antero-lateral angle, and the shape of the squamae which taper to an acute, curved point. The mucro in the type of *polygoni* is more robust than in the other specimens. The type of *quadricolor* was damaged

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by museum pests at some time in the past, and the head, thoracic sternum and all of the abdomen except first two tergites are missing. What is left agrees with the paratype of *quadricolor* in all essential respects except that the mucro is extremely short. It appears that the mucro in this species is subject to more variation than is normal for species of *Oxybelus*, and that its exact shape cannot be depended upon for differentiation of this species.

The male is similar to the female in the ocellar and vertexal tubercles, pronotal carina, and squamae. The chief differences between the two sexes, other than those of a sexual nature, are the shape of the mucro, which is more or less parallel-sided with rounded apex in the male and tapering to an acute point in the female, and in the male the red is usually lacking on the mesonotum.

Oxybelus lactus Say

Oxybelus lactus Say, 1837. Boston Jour. Nat. Hist. 1: 375. Male.

Oxybelus Packardii Robertson, 1889. Trans. Amer. Ent. Soc. 16: 80. Female, male. NEW SYNONYMY.

Oxybelus Packardii var. *texasus* Robertson, 1889. Trans. Amer. Ent. Soc. 16: 81. Female, male. NEW SYNONYMY.

Oxybelus heterolepis Cockerell and Baker, 1896. Psyche 7 (sup.): 22. Male. NEW SYNONYMY.

Oxybelus heterolepis var. *defectus* Cockerell and Baker, 1896. Psyche 7 (sup.): 23. Male. NEW SYNONYMY.

Oxybelus unicus Mickel, 1918 (1917). Nebr. Univ. Studies 17: 323. NEW SYNONYMY.

This widely distributed species is quite variable with respect to the color and extent of the pale markings, the color varying from white to yellow, and the extent varying as indicated in Robertson's descriptions of *packardii*, the variety *texasus*, and *lactus*. The types of *heterolepis* and the variety *defectus* are in the U. S. National Museum—both fall within the normal limits of variation. There is also in the Museum collection a topotypic paratype of *unicus* from Mitchell, Nebraska, and topotypic material of *packardii* and *packardii* var. *texasus*, all of which fall as synonyms of *lactus*.

Oxybelus robertsonii Baker

Oxybelus robertsonii Baker, 1896. Ent. News 7: 156. Male.

Oxybelus varicoloratus Baker, 1896. Ent. News 7: 157. Female. NEW SYNONYMY.

Oxybelus hirsutus Baker, 1896. Ent. News 7: 157. Female. NEW SYNONYMY.

The types of the three names listed above are in the U. S. National Museum. Those of *varicoloratus* and *hirsutus* (head lacking) from Fort Collins, Colorado, are separated by only a few minor color differences which hardly merit nomenclatorial recognition. These females are certainly the opposite sex of *robertsonii* males (type from vicinity of Fort Collins). The two sexes agree in the shape of the squamae and mucro, the presence of moderately dense silvery pubescence on dorsum of scutum and propodeum, development of pronotal carina, postscutellum not carinate in middle but with broad, shallow groove, and carina almost evanescent laterally on posterior surface of propodeum. The name *hirsutus* was inadvertently omitted in the Synoptic Catalog of North American Hymenoptera.

Oxybelus fossor Rohwer and Cockerell

Oxybelus fossor Rohwer and Cockerell, 1908. Ent. News 19: 179. Female.

Oxybelus umbrosus Mickel, 1916. Trans. Amer. Ent. Soc. 42: 432. Male.

This synonymy was established by Pate (Pan-Pacific Ent. 19: 125, 1943), but was overlooked in the Synoptic Catalog of North American Hymenoptera.

Oxybelus intermedius Baker

Oxybelus intermedius Baker, 1896. Ent. News 7: 160. Female.

Oxybelus coloradensis Baker, 1896. Ent. News 7: 160. Male. NEW SYNONYMY.

Notoglossa incisura Mickel, 1916. Trans. Amer. Ent. Soc. 42: 430. Male. NEW SYNONYMY.

The types of *intermedius* and *coloradensis*, both from Fort Collins, Colorado, are in the U. S. National Museum, and are obviously opposite sexes of the same species. They agree in such characters as the general sculpture, shape of squamae and mucro, microtrichiae present only anteriorly in basal cell, presence of a small swelling along inner anterior margin of posterior ocellus, and the well-developed, rounded distal lobe on hind femur. There are also two topotypic paratypes of *incisura* from Harrison, Nebraska, in the Museum collection which differ in no significant details from the type of *coloradensis*.

Oxybelus emarginatus Say

Oxybelus emarginatus Say, 1837. Boston Jour. Nat. Hist. 1: 375. Male.

Oxybelus parvus Cresson, 1865. Proc. Ent. Soc. Phila. 4: 476.
Female.

Notoglossa pacifica Rohwer, 1909. Trans. Amer. Ent. Soc. 35:
119. Male. NEW SYNONYMY.

The unique type of *pacifica* from Pullman, Washington, is in the U. S. National Museum. It falls easily within the normal limits of variation of the common and widely distributed *emarginatus*.

Oxybelus sericeus crocatus n. subsp.

This subspecies is described at this time so that some biological observations can be published which were made by H. E. Evans of Cornell University and two of his students. At present it is known only from the type series from Pascagoula on the Gulf Coast of Mississippi. The color differences which separate it from typical *sericeus* are of the character which distinguish the Florida races of many other aculeates. Many of these Florida races occur also along the Gulf Coast and in Georgia, so it seems very probable that *sericeus crocatus* should be found also in Florida and perhaps as far west as New Orleans.

It may be distinguished from typical *sericeus* by the replacement by orange of the normal pale yellow markings on thorax, legs and abdomen. It is separated from *fulvipes* Robt. and *floridanus* Robt., the only two species from Florida which are at all similar in general coloration and sculpture, by the following combination of characters: male with apical margin of clypeus quinquedentate, apical tergites without posterolateral teeth, and last two tergites lacking lateral carinae; female with the clypeus densely punctate except for very narrow apical rim; both sexes with very dense silvery vestiture on clypeus and face, punctuation of thorax and abdomen more delicate, pronotal carina interrupted laterally, and basal cell of forewing with microtrichiae evenly distributed.

Type. Male; Pascagoula, Jackson County, Mississippi; August 4, 1953 (H. E. Evans, C. M. Yoshimoto, and C. S. Lin) [U. S. National Museum, Type No. 62537].

Male. Length 6.9 mm. Punctuation and vestiture as in typical *sericeus*. Mandible yellow except at extreme base and the apical fourth. Other pale maculations orange instead of pale yellow as follows: small spot laterally on pronotum, tubercle, a pair of large ovoid spots on first tergite, a pair of narrow elongate streaks along apical margin of second tergite, tip of fore femur, short stripe on outer surface of mid femur on apical half, fore tibia on outer surface, anterior edge of outer surface of mid tibia, basal fourth of posterior

tibia on outer surface, and fore tarsus. Last three abdominal segments and flagellum orange as in typical *sericeus*.

Allotype. Female; same data as type [USNM].

Female. Length 6.9 mm. Similar to the male except the following also orange: a pair of oblique ovoid spots on scutellum, inner edge of squama, third and fourth tergites with very narrow lateral stripe along apices, mid and hind tibiae entirely on outer surface. The last two abdominal segments are entirely orange.

Paratypes. Six males, 3 females; same data as type. Two males and one female bear an additional label, "Biol. Note No. 580." Paratypes have been placed in the U. S. National Museum and Cornell University, and in the personal collections of H. E. Evans and the author.

Male paratypes vary in length from 4.9 to 7.9 mm. They are quite similar to the type except that three of them have narrow lateral lines on the apical margins of the third and fourth tergites. The female paratypes vary in length from 6.4 to 7.4 mm., and are otherwise very similar to the allotype.

Dr. Evans writes that these specimens were taken on a small beach of white sand along the Gulf, with adjacent salt marsh and mud banks. Numerous individuals were flying around close to the sand and landing on it, and several pairs were flying in copula. One female was taken with prey, an otitid fly, *Chactopsis fulvifrons* (Macq.) [det. R. H. Foote]. The fly is carried beneath the wasp during flight.

PUBLICATIONS RECEIVED

The Lepidoptera of Nova Scotia, Part I, Macrolepidoptera, by D. C. Ferguson. 215 pp., 17 plates and 1 map. 6×9 ins., paper bound. 1954. Nova Scotian Institute of Science. (Copies are available at \$2.00 each from the author at the Museum of Science, Halifax, Nova Scotia).

The Evolution and Taxonomy of the Sarcophaginae, by Selwyn S. Roback. 181 pp., 34 plates. 7×10 ins., paper or cloth bound. 1954. The University of Illinois Press, Urbana, Ill. (Price, paper bound—\$4.00, cloth bound—\$5.00)

Applied Entomology, by H. T. Fernald & Harold H. Shepard. 385 pp., 269 illus. 6×9 ins., cloth bound. Fifth Edition, 1955. McGraw-Hill Book Company, Inc., New York, N. Y. (Price, \$7.00)

Pomp and Pestilence, by Ronald Hare. 224 pp. 5×8 ins., cloth bound. 1955. Philosophical Library, Inc., New York, N. Y. (Price, \$5.75)